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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,381	05/25/2006	Shmuel Orenbuch	3137.00011	5140

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KOHN & ASSOCIATES, PLLC
30500 NORTHWESTERN HWY, SUITE 410
FARMINGTON HILLS, MI 48334

EXAMINER

STABLEY, MICHAEL R

ART UNIT	PAPER NUMBER
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3611

MAIL DATE	DELIVERY MODE
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04/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,381	Applicant(s) ORENBUCH, SHMUEL	
	Examiner Michael R. Stabley	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-13, and 16-21 rejected under 35 U.S.C. 102(b) as being anticipated by Yagi (JP 2001354156).

In re claims 1-3, Yagi discloses an omnidirectional mobility device as shown in Figures 1 and 6, said device comprising a active drive spherical means (w) for actively enabling omnidirectional movement and active drive means directly engaging said spherical means providing frictional engagement to drive said spherical means, wherein said spherical means is a globe (33), wherein said globe is formed of a material selected from the group consisting essentially of synthetic material, metal, stainless steel, rubber, plastic, glass, ceramics, and combinations thereof.

In re claims 6-10, Yagi discloses the mobility device according to claim 1, said device further including a drive mechanism (39) and steering mechanism (137), further including a motor for actuating said drive mechanism, wherein said motor includes reduction gears.

In re claims 11-13 and 16-19, Yagi discloses an omnidirectional vehicle (31) as shown in Figure 6 comprising a body and at least one omnidirectional mobility device (W1-W4) as set forth in claim 1, wherein said spherical means is a globe (33), wherein

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said globe is formed of a material selected from the group consisting essentially, of synthetic material, metal, stainless steel, rubber, plastic, glass, ceramics, and combinations thereof; said device further including a drive mechanism and a steering mechanism; further including a motor for operating said drive mechanism.

In re claim 20, Yagi discloses the omnidirectional vehicle according to claim 11 selected from the group consisting essentially of motor operated vehicles, bicycles, wheelchairs, recreational vehicles, forklifts, electrical transportation units, automobiles, carts, wheelchairs, chairs, and trailers as shown in Figure 6.

In re claim 21, Yagi discloses a wheelchair (31) as shown in Figure 6 comprising a body and at least one omnidirectional mobility device as set forth in claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 5, 14, and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi.

In re claims 4, 5, 14, and 15, Yagi discloses the device/vehicle of claims 2, 4, 12 and 14, respectively, but does not specifically disclose wherein the globe includes a coating formed of a resin. Since the globe is essentially a large bearing structure it would have been obvious to one having ordinary skill in the art at the time the invention

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was made to modify the globe of Yagi to include a resin coating similar to that of a bearing.

5. Claims 22 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi in view of Harris (U.S. 6,340,065).

In re claims 22 and 23, Yagi discloses the omnidirectional device of claim 1 to increase vehicle stability, but does not specifically disclose its use on a forklift or automobile. Harris, however, does disclose the use of an omnidirectional wheel on a forklift, which by definition is a type of automobile, to reduce vibration. It would have been obvious to one of ordinary skill in the art to modify the omnidirectional forklift of Harris such that it comprises the omnidirectional wheel of Yagi to further reduce vibrations in order to further increase stability.

Response to Arguments

6. Applicant's arguments filed 1/29/2009 have been fully considered but they are not persuasive. Applicant argues that the prior art does not teach the spherical means of the present invention. However, the examiner maintains that the rejection is proper as discussed above. Yagi does indeed disclose the spherical means as shown below in the translated abstract obtained from the European Patent Office Website

(<http://ep.espacenet.com/>):

“PROBLEM TO BE SOLVED: To provide an omnidirectional moving device using a spherical driving wheel improved in travel stability. SOLUTION: Three or more driving wheel assemblies W are arranged on a base 32. The respective driving wheel

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assemblies W support a top part 36 of the spherical driving wheel 33 by a top part support roller 37, and support an outer peripheral part by three or more outer peripheral part support rollers 35, and the respective outer peripheral part support rollers 35 are journaled by an annular roller holder 38, and the roller holder is rotatably driven by a rotational driving source 39.; The rotational axis 68 on a normal of a first virtual one plane 46 including the rotational axis 49 of the respective outer peripheral part support rollers 35 and a first virtual one plane passing through the center of the spherical driving wheel 33, is inclined in the directions different with respective driving wheel assemblies W to a normal of a traveling surface 89.”

Applicant also argues that the prior art does not teach an active drive means. However, the examiner maintains that Yagi clearly demonstrates an active drive means (37) that directly engages the spherical means (33) providing frictional engagement to drive said spherical means as shown in Figures 1 and 2.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Stabley whose telephone number is 571-270-3249. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael R Stabley/

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Examiner, Art Unit 3611

/Christopher P Ellis/

Supervisory Patent Examiner, Art Unit 3618